

11.0 DATABASE OF PRIVATE SECTOR COMPANIES

11.1 Introduction

A significant part of any good marketing effort is understanding the audience. This task develops over the course of any product or service launch. It begins when the effort is initially defined. In a broad sense, the audience is defined at this stage to understand its overall size, scope and technical and business needs.

As launch efforts progress, the view of the audience is refined to include specific demographic characteristics and priorities. Finally, the information is expanded to include specific user names, contacts, and propensity to use or buy an offering. At this point, the information is in the form of a contact database, used for one-to-one marketing efforts to expand or deepen the use of the product or service.

In general, for the NSDI, many would define the user community in different ways. Usership has also evolved over time. But in general, very little is known, in the aggregate, about private sector usage, needs, budgets, and issues. Part of this initial effort has been determining just how far back in the launch chain we have to go to build an understanding of this private sector marketplace.

This Section Addresses

- Knowing the customer
- Designing a database
- Designing a database for the NSDI

We have determined this effort is extensive, not just due to the sheer size of the private sector, but also because of the proliferation of applications, number of industries, existing data sets, market drivers and the pace of technological change.

As a result, we feel our efforts in this area, in future phases, will seek to define the user community, in greater detail, and prioritize vertical markets and key players. Finally, a database of the key players, in selected markets, will be built in subsequent phases to use for promotional and one-to-one marketing efforts designed to improve private sector participation.

11.2 First, Choose Target Industries

Although we discussed the application of spatial data and GIS in several different industries in Section 10, many more industries have uses for spatial data. It will be important, in any effort to increase private sector participation, not to exclude industries, but to focus initial efforts on certain industries and data providers

where the largest benefit of participation can be realized in the shortest time frame.

Part of the Phase II effort will be to choose these specific industries for focus, but include in the private sector database, the ability to catalog potential participants from all industries.

We will want the private sector database to be searchable by industry and NAICS code to help use determine participation by sector. Over time, we may find that a particular focus industry has the potential for greater participation, but other smaller industry sectors actually participate more because of more organized efforts or more critical needs. Using the database to track this by industry will be important.

One factor to consider when building a prioritized list of industries and users is the need for, and availability of, the offering. Typically, when introducing a new product or service, key industries would have been defined before any product or service was developed. In this case, we have to examine currently available and emerging data, applications and infrastructure, pick the best ones, and determine a program to capitalize on existing efforts. Then, we can define future targets.

By prioritizing these existing data, applications and infrastructures, we will, in effect, define some as areas not worthy of current efforts. As we define the “user community” in detail, in future phases, we will use several tools.

First, we have to define a “big picture” view of the marketplace by listing industries. We will begin with the industries explored in Section 10.

In Phase II, we will take each of these industries and define a matrix showing the economic sector, users, content and application providers and infrastructure providers:

Example: Agriculture

<i>Industry</i>	<i>Users</i>	<i>Content and Application Providers</i>	<i>Infrastructure Providers</i>
<i>Agriculture</i>	Farmers and Food Producers	Vantage Point Network/NSDI, XSAG.com, Farms.com, DirectAG.com, etc.	Hardware, operating systems, networks, databases such as Sun, IBM, Microsoft, Oracle, Novell, Cisco and middlewear vendors.

Once we have created lists like this for each economic sector, we will use another matrix to rank the players in each sector:

Company	Sector	NAICS Code	Annual Revenues	Number of Employees	Uses of Data	Contributions of Data	Rank

We will do this for each industry sector, and then roll up the rankings for all sectors. This will allow us to rank sectors and companies. Our goal is to prioritize both sectors and companies in the private sector to show where our focus should lie in terms of increasing participation.

11.3 Software Applications and Technical Providers

Just as we track the participant database by industry, we should also track it by application and content. We should also note which participants are providers of spatial data and which are users of spatial data.

We may find over time that certain applications have more active participants due to the severity or urgency of their need to share spatial data. Profit motives will, of course, also drive participation within application areas.

Certain infrastructure providers may participate more readily due to their size or due to their profit motives. We will want to track this and see if we can determine the characteristics of a full or active participant. Then, we can seek other participants with similar profiles to target for full or active participation. Better yet, if we can pair those industries or application users with a great need with infrastructure providers that are not as active, we can increase participation further.

We do not mean to trivialize the effort required to track participation within the private sector database. This will be a significant effort to maintain and analyze a database. But, this effort is necessary to increase participation. Just as spatial data helps companies manage better, the use and management of a database of participation will help increase participation.

11.4 End Users (Emerging Operations Users)

The largest community to track in the database will be the end user community. This group is not a cohesive, organized group. This is why the efforts to drive

participation have not been successful. Building a database of these users will not, in and of itself, drive participation. The use of this database to contact and sell these end users on participation is what is essential. Maintaining the database of these users is critical. Most “mailing lists” that can be purchased commercially become at least 15% inaccurate within one month.

Keeping our participation database current will be essential to building a cohesive community.

The classification of end users by industry, application, etc. will be critical in the database to help match participants to providers – a key benefit for both parties. The database becomes not just a body of information but a problem-solving resource for end users.

11.5 Findings from Other Databases

During the process of investigating participation, and through our experience working with databases for clients from many different applications, one thing is clear. Databases lose accuracy, and therefore, effectiveness, if they are not maintained.

There are surely other findings like database compatibility issues, although most systems can at least send delimited text data back and forth. But, the single most important finding from any database used is its accuracy. Most purchased lists are inaccurate when delivered. The effort to maintain databases is directly proportional to the number of critical fields of data contained in the database. The effort to maintain databases is hugely manual, although direct feed, and other automated methods are being utilized increasingly for the more quantitative fields in a participation database such as annual revenues, numbers of employees, and numbers of locations.

The more subjective information about usage and need are maintained through manual means. This requires a staff of researchers, telephone interviewers, and database entry personnel, as well as some IT staff, to maintain.

Proper maintenance also requires a methodology for maintenance and an infrastructure that promotes quality of the data and consistency in the way it is developed.

Security of the data is paramount to preserve the investment in the database and to preserve the privacy of participants. Participants will be more likely to participate if they know the data will be used to foster participation and help them either solve problems or grow revenues, than if the data will be sold to list brokers for direct mail purposes.

Access to the database, while controlled from a security point of view, must be made simple and inexpensive. Participants should be able to take advantage of the latest Web browser technologies to facilitate their usage of the participation database. If participants have to understand the technical nature of database management and manipulation to use the database, they will not be likely to use it often.

The database must have information that is useful to the community it serves. Other information, while perhaps easy to obtain and maintain, should be foregone to limit the database to the most useful information.

One other common theme we heard from others who have attempted to build participation databases, is that the effort must be well funded.

Surveys have, for the most part, been unsuccessful, because the recipients of surveys have no motivation to fill out the survey. Survey efforts are most effective when followed up with “selling” efforts to promote participation in the building of the database. This kind of effort will require an investment in manpower to interview companies and then transform their information into the database.

11.6 Database Design Description and Criteria Used for Selection

- The design of the database must be flexible, secure, and optimized for performance.
- The potential for this participation database to grow to very large proportions is great. The number of potential participants from the end user, application, technical integrators and provider communities is very large.
- The user interface must facilitate participation in terms of accessibility and the means to manipulate data for reporting.
- The database must be maintainable.

When we add participants to the database, we should do so relative to a set of criteria that will increase the integrity of the database, not so much in terms of accuracy, but in terms of the value of the data we are adding to the effort. The criteria should focus on some kind of prioritization of participants. This prioritization may shift over time but it will help focus the efforts of the organizations assigned to using the database to grow participation.

The specific fields in the database must be designed to create an efficient body of information, but an informative one.

When designing the database to be used for eventual one-to-one marketing to the private sector, we must keep three factors in mind:

- Usability and ease of updating
- Meaningful data
- Accuracy and maintainability

The data must be usable from the perspective of search and query, data download, data upload and updates, and report generation.

The database will be generated in a SQL-compliant format due to the ease of download and upload and the proliferation of this format in many industries and on many Web sites. We will create a user interface, eliminating the need to understand database design for queries, reports and data entry.

The data must be meaningful. If it is not, no one will use it or keep it up to date. Meaningful data will help users understand the size, business needs, and potential contributions of the profiled company.

The data must be accurate. When we define the database profile, we will embark upon a primary and secondary research approach where companies are contacted as they are being entered into the database. The contact information and general company information will be accurate as the data is delivered. We will also use a quality control to make sure the data entered meets our research, data analysis and data entry standards.

11.7 Database Record: Form and Purpose Descriptions

Each database record will include the following information, if available:

Company Name

Address 1:	<i>124 Duncan Street</i>
Address 2:	<i>Suite 100</i>
City:	<i>MacPherson</i>
State:	<i>KY</i>
Zip Code:	<i>12345</i>

Telephone:	<i>773-555-1212</i>
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Fax:	<i>773-555-1212</i>
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Web Site:	<i>www.companywebsite.com</i>
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* Contact First Name: John
* Contact Last Name: Doe
* Contact Title: Vice President
* Contact Department: Product Marketing
* Contact Address 1: (if different from company)
* Contact Address 2: (if different from company)
* Contact City: (if different from company)
* Contact State: (if different from company)
* Contact Zip Code: (if different from company)
* Contact Phone: (if different from company)
* Contact Fax: (if different from company)
* Contact email: john.doe@companywebsite.com

* Repeat for each company contact found.

Stock Symbol: ABCD
Stock Exchange: NASDAQ

Fiscal Year End: Month
Revenues: \$XXX.X million
Revenue Growth: xx.x%
Net Income: \$xx.x million
Net Income Growth: xx.x%

Founded Date: 1973
Employees: xxxxxxxx

Ownership: Public or Private, Non-profit, etc.
Key Stockholders:
Overview of the Company: Several paragraphs

Solutions offered/Products: List of products with a one-paragraph description for each

Services: List of services with a one-paragraph description for each

Software Formats Supported/Available: DXF, TIFF, etc.
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Economic Sector or Industry:

NAICS Code: code showing standard industry classification (replaces SIC codes)

GI Products Used:

Key Technologies Employed: Listing of technologies like Java, HTML, AutoCAD drawings, etc.

Key Alliances/Partnerships: Listing of alliance partner companies

Competition: Listing of this firm's competitors

Key Messaging:

- Key quotes from their literature, web site
- Messages from advertisements
- Messages from press releases

Locations and Subsidiaries: Listing of cities, states, countries

Strategic Direction or Business Issues: Paragraph on their strategic direction

Answers to Questionnaire: a series of questions to be determined about NSDI participation (past and future)

11.8 Participant Universe

As we begin to collect companies for this database, they will be placed in a Web-enabled database, accessible to those specified by the STIA and the USGS. This access may be broadened at any time after we all agree that the makeup of the participant universe of companies is correct.

11.9 Participant Database Verification and Maintenance

Throughout this report, we have identified the maintenance of a database as a critical component of its usefulness over time. Within one month, a database can be aged to the point that the use of the database will cause unnecessary expense in the form of returned mailings, wrong phone numbers, and bounced email messages.

As soon as the participant database is built, we should embark upon a maintenance process to mitigate the loss of accuracy in this database.